



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

August 28, 2013

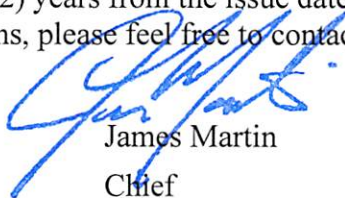
WELL WORK PERMIT
Secondary Recovery Well

This permit, API Well Number: 47-10301747, issued to HG ENERGY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: L. E. DULANEY 201
Farm Name: GIFFORD, THOMAS & DAVID
API Well Number: 47-10301747
Permit Type: Secondary Recovery Well
Date Issued: 08/28/2013

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

WW-3B
10/07



1) Date June 25, 2013
 2) Operator's Well No. L. E. Dulaney 201
 3) API Well No. 47 - 103 - 1747
 State County Permit
 4) UIC Permit No. UIC2R10304AP

STATE OF WEST VIRGINIA
NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION
FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

- 5) WELL TYPE: Liquid Injection X Gas Injection (not storage) _____ Waste Disposal _____
- 6) LOCATION: Elevation 1276' Watershed North Fork of Fishing Creek
 District Grant 04 County Wetzel 103 Quadrangle Pine Grove 7.5' 548
- 7) WELL OPERATOR: HG Energy, LLC 494497948
5260 Dupont Road
Parkersburg, WV 26101
- 8) DESIGNATED AGENT: Mike Kirsch
5260 Dupont Road
Parkersburg, WV 26101
- 9) OIL & GAS INSPECTOR TO BE NOTIFIED: Name Derek Haught
 Address PO Box 85
Smithville, WV 26178
- 10) DRILLING CONTRACTOR: Name To Be Determined Upon Permit Approval
 Address _____
- 11) PROPOSED WELL WORK: Drill _____ Drill Deeper _____ Redrill _____ Stimulate _____
 Plug Off Old Formation _____ Perforate New Formation _____ Convert X
 Other Physical Change in Well (specify) _____
- 12) Geological target formation Gordon Depth 3,122 Ft. (Top) to 3,134 Ft. (Bottom)
- 13) Estimated depth of completed well (or actual depth of existing well) 3321' Ft.
- 14) Approximate water strata depths: Fresh 476 Ft. Salt 1,440 Ft.
- 15) Approximate coal seam depths: 1035 Ft.
- 16) Is coal being mined in the area? Yes X No
- 17) Virgin reservoir pressure in target formation: 60 psig. Source Estimated
- 18) Estimated reservoir fracture pressure: 1200 psig.
- 19) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour 25 bbl/hr Bottom Hole Pressure 2400 psi
- 20) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES and other chemicals as needed to maintain water quality and improve oil recovery. Fresh water, produced water, bactericides
- 21) FILTERS (IF ANY) Cartridge filters and/or coal bed filters
- 22) SPECIFICATION FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL _____
- 23) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILLUP OR SACKS (CU. FT.)	PACKERS
	Size	Grade	Weight	New	Used	For Drilling	Left in Well		
Conductor									Kinds
Fresh Water	8 5/8"	J-55	20#	X		1150'	1150'	Use Existing Casing	Tension
Coal									Sizes
Intermediate									2.375" X 4.5"
Production	4 1/2"	J-55	10.5#	X		3218'	3218'	Use Existing Casing	Depths Set
Tubing	2 3/8"	J-55	4.6#	X		2990'	2990'		2890'
Liners									Perforations
									Top Bottom

24) APPLICANTS OPERATING RIGHTS were acquired from Louisa & Edward Dulaney
 by Deed _____ Lease X Other Contract _____ Dated January 03, 1889 of record in the
Wetzel County Clerk's Office in Lease Book 61 at Page 115

Office of Oil and Gas
 WV Dept. of Environmental Protection

103017475

Office of Oil and Gas
WV Dept. of Environmental Protection



1) Date: June 25, 2013
2) Operator's Well No. L. E. Dulaney 201
3) API Well No. 47 103 - 1747
State County Permit
4) UIC Permit No. UIC2R10304AP

103017479

STATE OF WEST VIRGINIA
NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION
FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

5) Surface Owner(s) To Be Served

(a) Name Thomas & David Gifford c/o B Barkwill, Esq
Address 705 Maple Avenue
New Martinsville, WV 26155

(b) Name _____
Address _____

(c) Name _____
Address _____

6) Inspector Derek Haught
Address PO Box 85
Smithville, WV 26178
Telephone 206-7613

7 (a) Coal Operator

Name NA
Address _____

7 (b) Coal Owner(s) With Declaration Of Record

Name NA
Address _____

Name NA
Address _____

7(c) Coal Lessee With Declaration Of Record

CONSOL - Mid Ohio Valley Operations
6126 Energy Road
Moundsville, WV 26041

TO THE PERSON(S) NAMED ABOVE: You should have received this form and the following documents:

- (1) The Application for a Liquid Injection or Waste Disposal Well Work Permit on Form WW-3(B), which sets out the parties involved in the drilling or other work;
- (2) The plat (surveyor's map) showing the well location on Form WW-6; and
- (3) The Construction and Reclamation Plan on Form WW-9 (unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.

The date proposed for the first injection or waste disposal is NA

THE REASON YOU RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON FORM WW-3(A) DESIGNATED TO YOU. HOWEVER YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a Well Work Permit with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to a well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of the mailing or delivery to the Chief.

The person signing this document shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Well Operator HG Energy, LLC
Address 5260 Dupont Road
Parkersburg, WV 26101

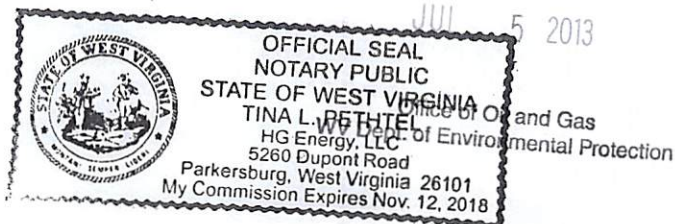
By: Diane C. White
Its: Accountant

Signature

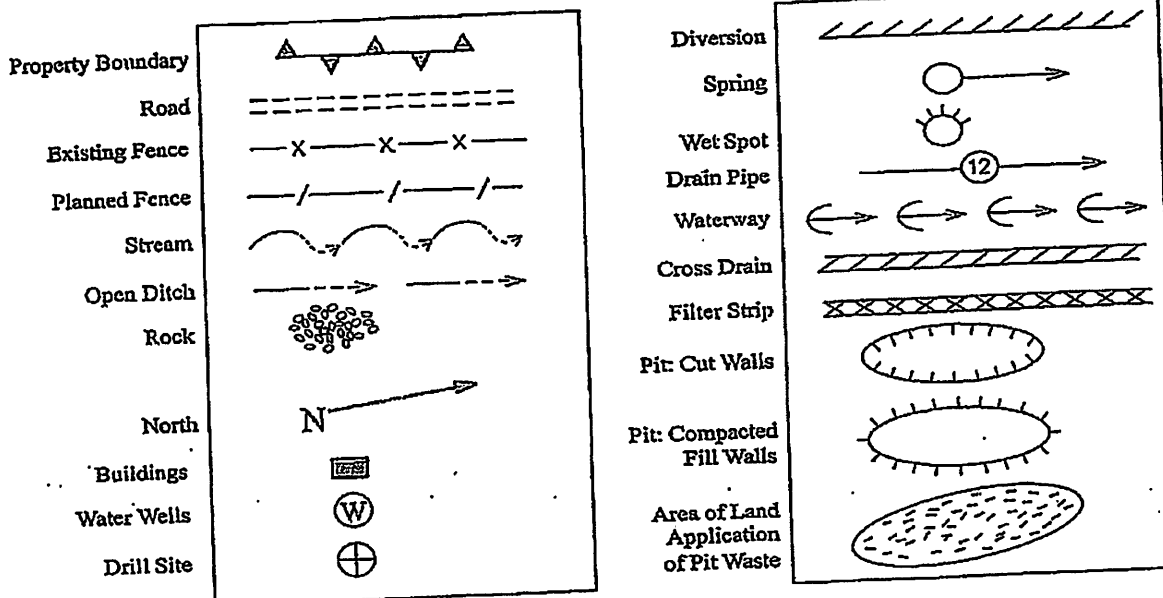
Diane C. White
Received

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at: depprivacyofficer@wv.gov



Legend



Proposed Revegetation Treatment: Acres Disturbed Area I Approx. 0.2 Ac. Prevegetation pH _____

Area II Approx. 0.1 Ac.

Lime 2 Tons/Acre or Correct to pH 6.5

Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum)

Mulch Straw 2 Tons/Acre

SEED MIXTURES

Area I (Location)	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

Area II (Road)	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

Attach:

Drawing(s) of road, location, pit and proposed area for land application
Photocopied section of involved 7.5' topographic sheet.

Plan approved by: [Signature]

Comments: _____

Title: Oil & Gas Inspector

Date: 6-27-12

Field Reviewed?

(☒) Yes

(☐) No

Received

JUL 5 2013

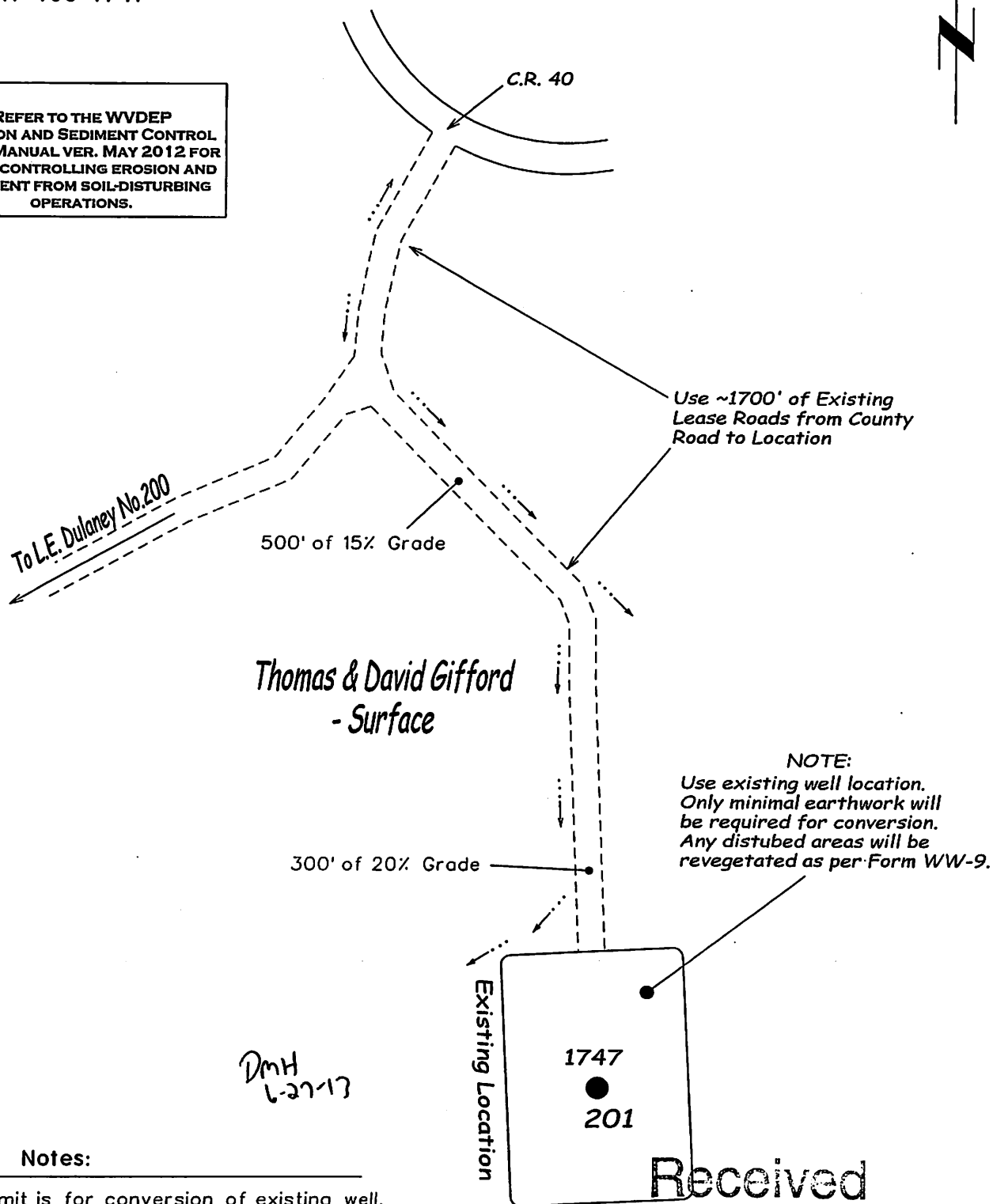
Office of Oil and Gas
WV Dept. of Environmental Protection

Reclamation Plan For:

L.E. Dulaney No. 201

47-103-1747

REFER TO THE WVDEP
EROSION AND SEDIMENT CONTROL
FIELD MANUAL VER. MAY 2012 FOR
BMPs CONTROLLING EROSION AND
SEDIMENT FROM SOIL-DISTURBING
OPERATIONS.



Notes:

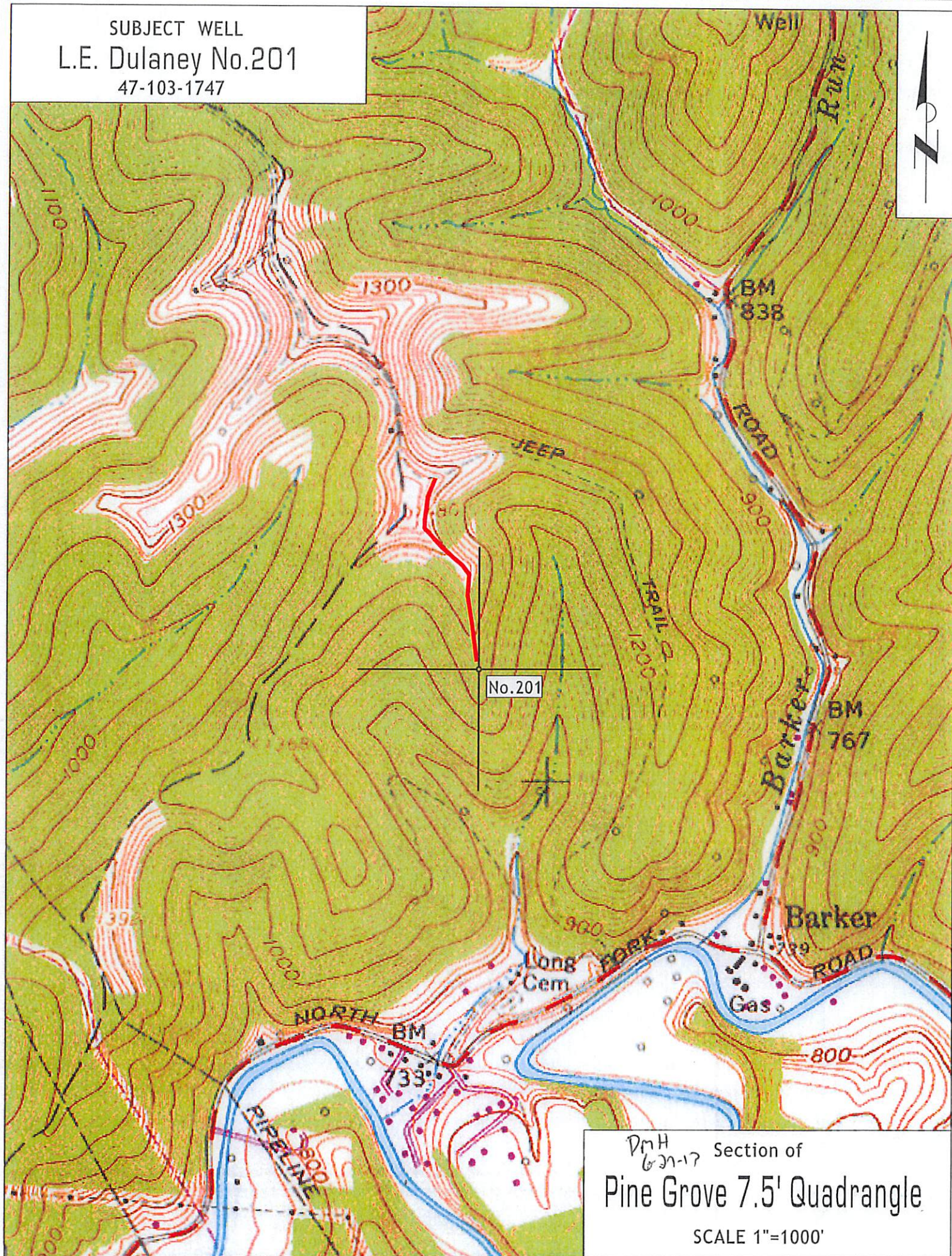
- Requested permit is for conversion of existing well.
- Access road from Co. Rd. 40 to well location is existing. Structures will be maintained.
- All disturbed areas will be re-vegetated as outlined on Form WW-9.
- Maintain sediment barriers and drainage structures.
- All road grades <5% except as noted.
- No pit will be constructed for proposed well work.

JUL 5 2013

Office of Oil and Gas
WV Dept. of Environmental Protection

Note: Drawing not to Scale

SUBJECT WELL
L.E. Dulaney No.201
47-103-1747



DmH 63-17 Section of
Pine Grove 7.5' Quadrangle

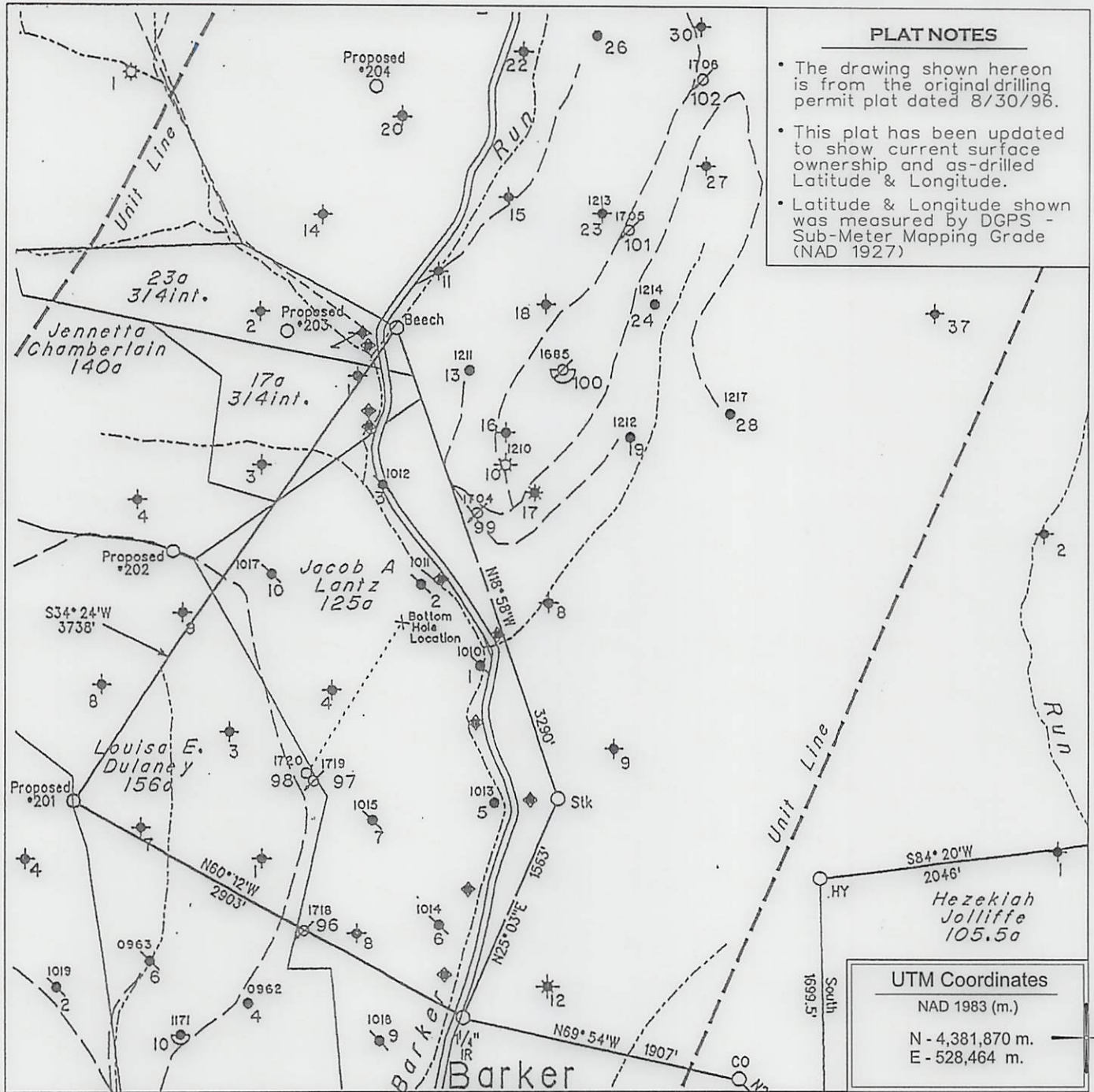
SCALE 1"=1000'

Longitude - 80° 40' 07.4" 575

LATITUDE 39° 37' 30"

PLAT NOTES

- The drawing shown hereon is from the original drilling permit plat dated 8/30/96.
- This plat has been updated to show current surface ownership and as-drilled Latitude & Longitude.
- Latitude & Longitude shown was measured by DGPS - Sub-Meter Mapping Grade (NAD 1927)



+ DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

FILE NO. _____
MAP NO. _____ N _____ S _____ E _____ W _____
SCALE 1" = 1000'
MINIMUM DEGREE OF
ACCURACY Sub-Meter
PROVEN SOURCE OF
ELEVATION WVDEP Records

I THE UNDERSIGNED, HEREBY CERTIFY THAT
THIS PLAT IS CORRECT TO THE BEST OF MY
KNOWLEDGE AND BELIEF AND SHOWS ALL THE
INFORMATION REQUIRED BY LAW AND THE REGU-
LATIONS ISSUED AND PRESCRIBED BY THE DEPART-
MENT OF MINES.

(SIGNED) Timothy P. Roush
TIMOTHY P. ROUSH PS 793



WEST VIRGINIA

Division of Environmental Protection
Office of Oil and Gas
601 57th Street
Charleston, West Virginia 25304



DATE June 19, 2013
FARM L.E. Dulaney No.201
API WELL NO.

47 - 103 - 01747S

WELL TYPE: OIL _____ GAS _____ LIQUID INJECTION ☒ WASTE DISPOSAL _____
(IF "GAS") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW _____
LOCATION: ELEVATION 1,276' WATERSHED North Fork of Fishing Creek
DISTRICT Grant COUNTY Wetzel
QUADRANGLE Pine Grove 7.5'

SURFACE OWNER Thomas & David Gifford ACREAGE 83.3 Ac.
OIL & GAS ROYALTY OWNER Robert B. Myers et al. LEASE ACREAGE 125 Ac.
LEASE NO. 31950-50

PROPOSED WORK: DRILL _____ CONVERT ☒ DRILL DEEPER _____ REDRILL _____ FRACTURE OR
STIMULATE _____ PLUG OFF OLD FORMATION _____ PERFORATE NEW
FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) Convert to Liquid Injection

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
TARGET FORMATION Gordon ESTIMATED DEPTH 3,321'
WELL OPERATOR HG Energy, LLC DESIGNATED AGENT Mike Kirsch
ADDRESS 5260 Dupont Road ADDRESS 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101

LONGITUDE 80° 40' 00"

14,200'

Latitude - 39° 35' 09.6"